



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1096577  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-  
Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-  
Feet from  North /  South Line of Section

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-  
Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1096577

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*  
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*  
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Caerus Kansas LLC
Well Name	Mortimer #31-32B
Doc ID	1096577

All Electric Logs Run

Microlog
Compensated Neutron Density
Sonic Log
Dual Induction

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

October 16, 2012

Amy Lay  
Caerus Kansas LLC  
600 17TH ST, STE 1600 N  
DENVER, CO 80202

Re: ACO1  
API 15-009-25736-00-00  
Mortimer #31-32B  
NE/4 Sec.31-17S-13W  
Barton County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Amy Lay



## DRILL STEM TEST REPORT

Prepared For: **Caerus Kansas, LLC**

PO Box 1378  
Hays, KS. 67601

ATTN: Justin Carter

**Mortimer #31-32B**

**31-17s-13w-Barton**

Start Date: 2012.08.15 @ 17:27:17

End Date: 2012.08.15 @ 23:26:02

Job Ticket #: 47844                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.08.15 @ 23:42:11



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

ATTN: Justin Carter

Job Ticket: 47844

**DST#: 1**

Test Start: 2012.08.15 @ 17:27:17

## GENERAL INFORMATION:

Formation: **LKC-A-C**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 19:05:47

Time Test Ended: 23:26:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Jason McLemore

Unit No: 54

**Interval: 3122.00 ft (KB) To 3170.00 ft (KB) (TVD)**

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3170.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8366**

**Inside**

Press @ Run Depth: 58.08 psig @ 3157.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.15

End Date:

2012.08.15

Last Calib.:

2012.08.15

Start Time:

17:27:19

End Time:

23:26:02

Time On Btm:

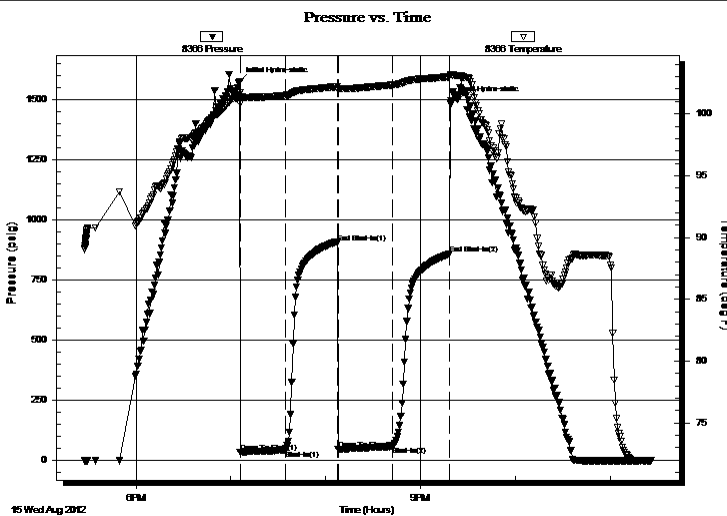
2012.08.15 @ 19:05:32

Time Off Btm:

2012.08.15 @ 21:19:17

**TEST COMMENT:** IFP-Weak Blow , Built to 1"  
ISI-Dead  
FFP-Weak Blow , Built to 1"  
FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1574.38	101.71	Initial Hydro-static
1	32.86	100.82	Open To Flow (1)
29	43.02	101.48	Shut-In(1)
62	903.06	102.19	End Shut-In(1)
63	46.25	101.92	Open To Flow (2)
97	58.08	102.32	Shut-In(2)
133	858.99	102.99	End Shut-In(2)
134	1495.61	103.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Muddy Water W/Oil Scum	0.42

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE**  
**TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Kansas, LLC

PO Box 1378  
Hays, KS. 67601

ATTN: Justin Carter

**31-17s-13w-Barton**

**Mortimer #31-32B**

Job Ticket: 47844

**DST#: 1**

Test Start: 2012.08.15 @ 17:27:17

## GENERAL INFORMATION:

Formation: **LKC-A-C**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 19:05:47  
 Time Test Ended: 23:26:02  
**Interval: 3122.00 ft (KB) To 3170.00 ft (KB) (TVD)**  
 Total Depth: 3170.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Good

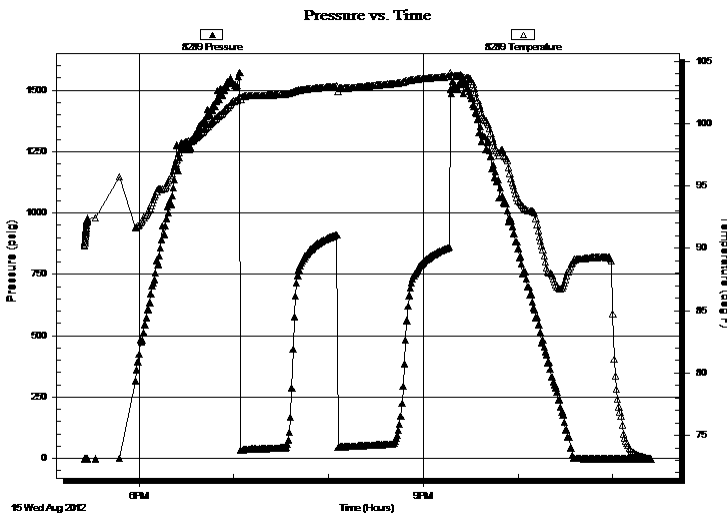
Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 1870.00 ft (KB)  
 1860.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 8289 Outside

Press@RunDepth: psig @ 3157.00 ft (KB)  
 Start Date: 2012.08.15 End Date: 2012.08.15  
 Start Time: 17:25:33 End Time: 23:24:31

Capacity: 8000.00 psig  
 Last Calib.: 2012.08.15  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IFP-Weak Blow , Built to 1"  
 ISI-Dead  
 FFP-Weak Blow , Built to 1"  
 FSI-Dead



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Muddy Water W/Oil Scum	0.42

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

Job Ticket: 47844

**DST#: 1**

ATTN: Justin Carter

Test Start: 2012.08.15 @ 17:27:17

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

27000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Muddy Water W/Oil Scum	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



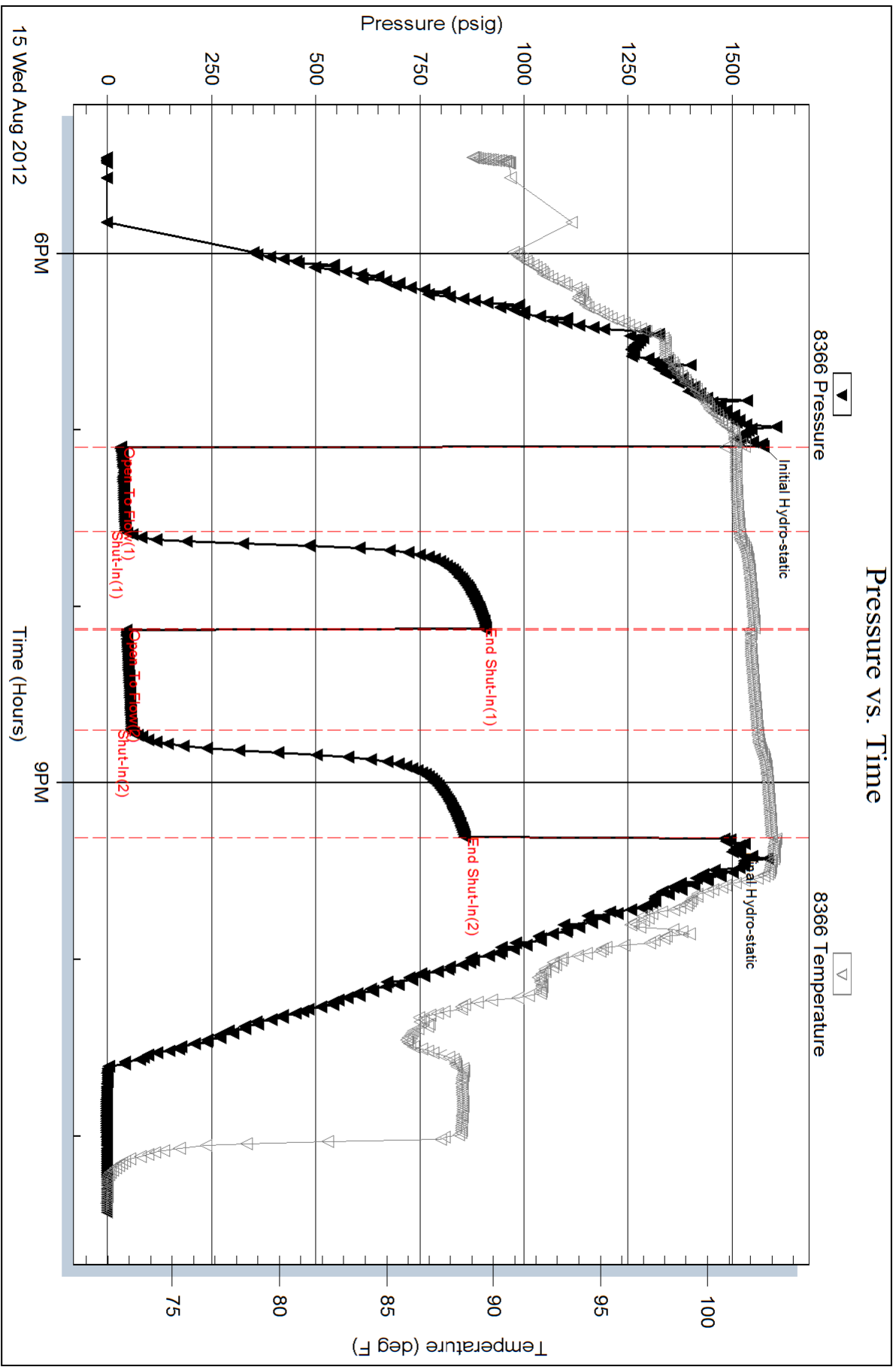
Serial #: 8366

Inside

Caerus Kansas, LLC

Mortimer #31-32B

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 47844

Printed: 2012.08.15 @ 23:42:12

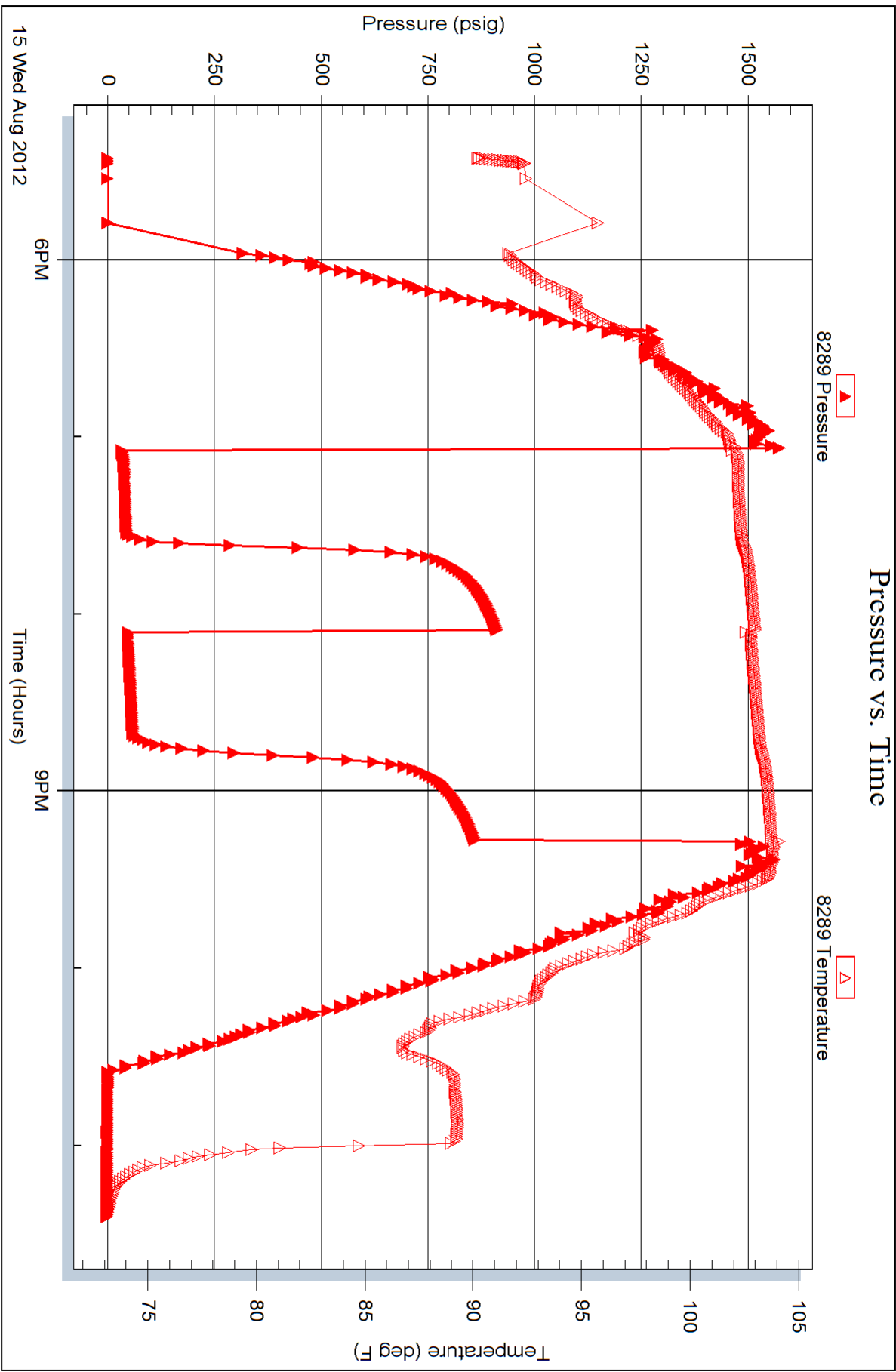
Serial #: 8289

Outside

Caerus Kansas, LLC

Mortimer #31-32B

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 47844

Printed: 2012.08.15 @ 23:42:12



## DRILL STEM TEST REPORT

Prepared For: **Caerus Kansas, LLC**

PO Box 1378  
Hays, KS. 67601

ATTN: Justin Carter

**Mortimer #31-32B**

**31-17s-13w-Barton**

Start Date: 2012.08.16 @ 06:57:29

End Date: 2012.08.16 @ 12:45:44

Job Ticket #: 47845                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.08.16 @ 13:05:28



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Kansas, LLC  
 PO Box 1378  
 Hays, KS. 67601  
 ATTN: Justin Carter

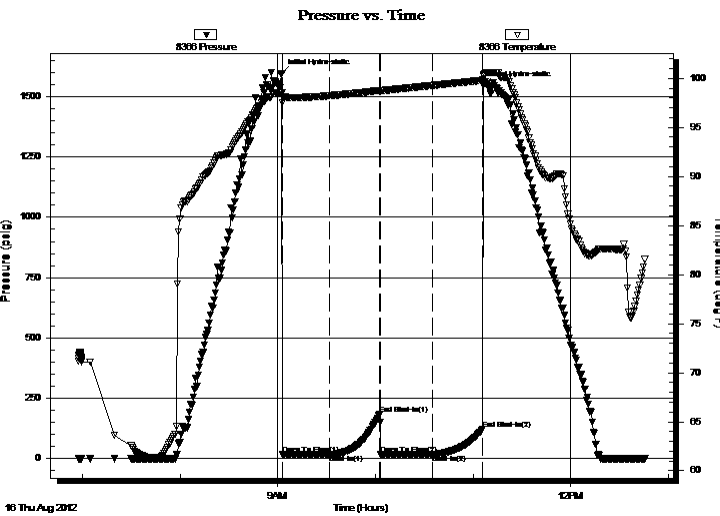
**31-17s-13w-Barton**  
**Mortimer #31-32B**  
 Job Ticket: 47845      **DST#: 2**  
 Test Start: 2012.08.16 @ 06:57:29

## GENERAL INFORMATION:

Formation: **D-E-F**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 09:02:44  
 Time Test Ended: 12:45:44  
 Interval: **3168.00 ft (KB) To 3204.00 ft (KB) (TVD)**  
 Total Depth: 3204.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 1870.00 ft (KB)  
 1860.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8366      Inside**  
 Press @ Run Depth: 16.61 psig @ 3171.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2012.08.16      End Date: 2012.08.16      Last Calib.: 2012.08.16  
 Start Time: 06:57:31      End Time: 12:45:44      Time On Btm: 2012.08.16 @ 09:02:29  
 Time Off Btm: 2012.08.16 @ 11:06:14

TEST COMMENT: IFP-Weak Blow , Died in 10 Min.  
 ISI-Dead  
 FFP-Dead  
 FSI-Dead



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1593.90	98.54	Initial Hydro-static
1	16.26	97.53	Open To Flow (1)
30	17.31	98.23	Shut-In(1)
60	183.68	98.78	End Shut-In(1)
61	16.28	98.71	Open To Flow (2)
93	16.61	99.28	Shut-In(2)
124	120.91	99.81	End Shut-In(2)
124	1544.71	100.31	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Drilling Mud	0.03

\* Recovery from multiple tests

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

ATTN: Justin Carter

Job Ticket: 47845

**DST#: 2**

Test Start: 2012.08.16 @ 06:57:29

## GENERAL INFORMATION:

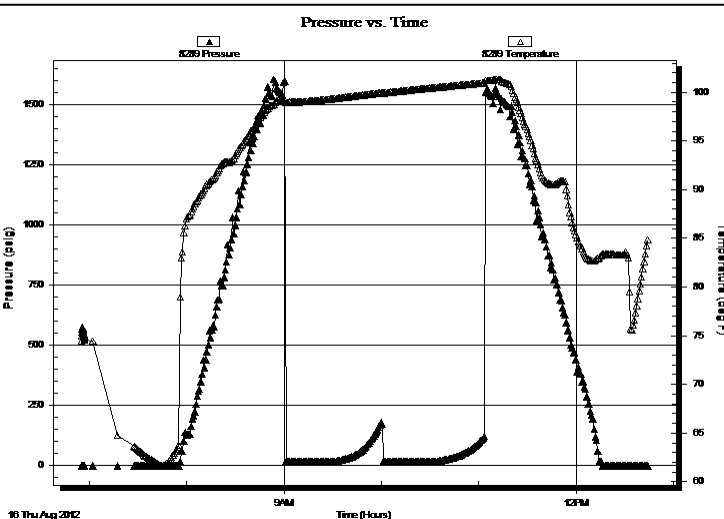
Formation: **D-E-F**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 09:02:44  
 Time Test Ended: 12:45:44  
 Interval: **3168.00 ft (KB) To 3204.00 ft (KB) (TVD)**  
 Total Depth: 3204.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 1870.00 ft (KB)  
 1860.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8289**

**Outside**

Press @ Run Depth: psig @ 3171.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.08.16 End Date: 2012.08.16 Last Calib.: 2012.08.16  
 Start Time: 06:55:22 End Time: 12:44:05 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IFP-Weak Blow, Died in 10 Min.  
 ISI-Dead  
 FFP-Dead  
 FSI-Dead



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Drilling Mud	0.03

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

Job Ticket: 47845

**DST#: 2**

ATTN: Justin Carter

Test Start: 2012.08.16 @ 06:57:29

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Drilling Mud	0.028

Total Length: 2.00 ft      Total Volume: 0.028 bbl

Num Fluid Samples: 0

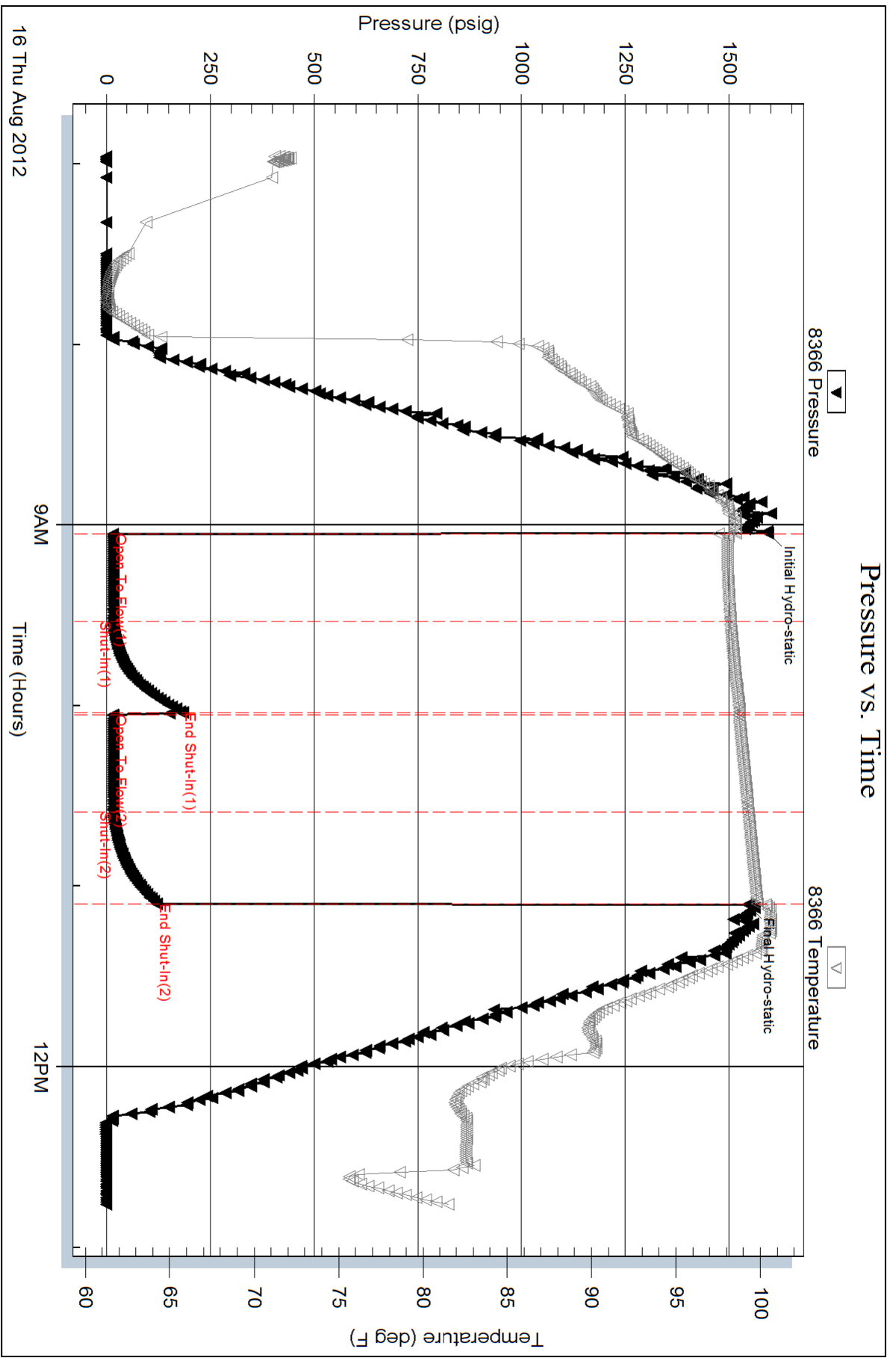
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

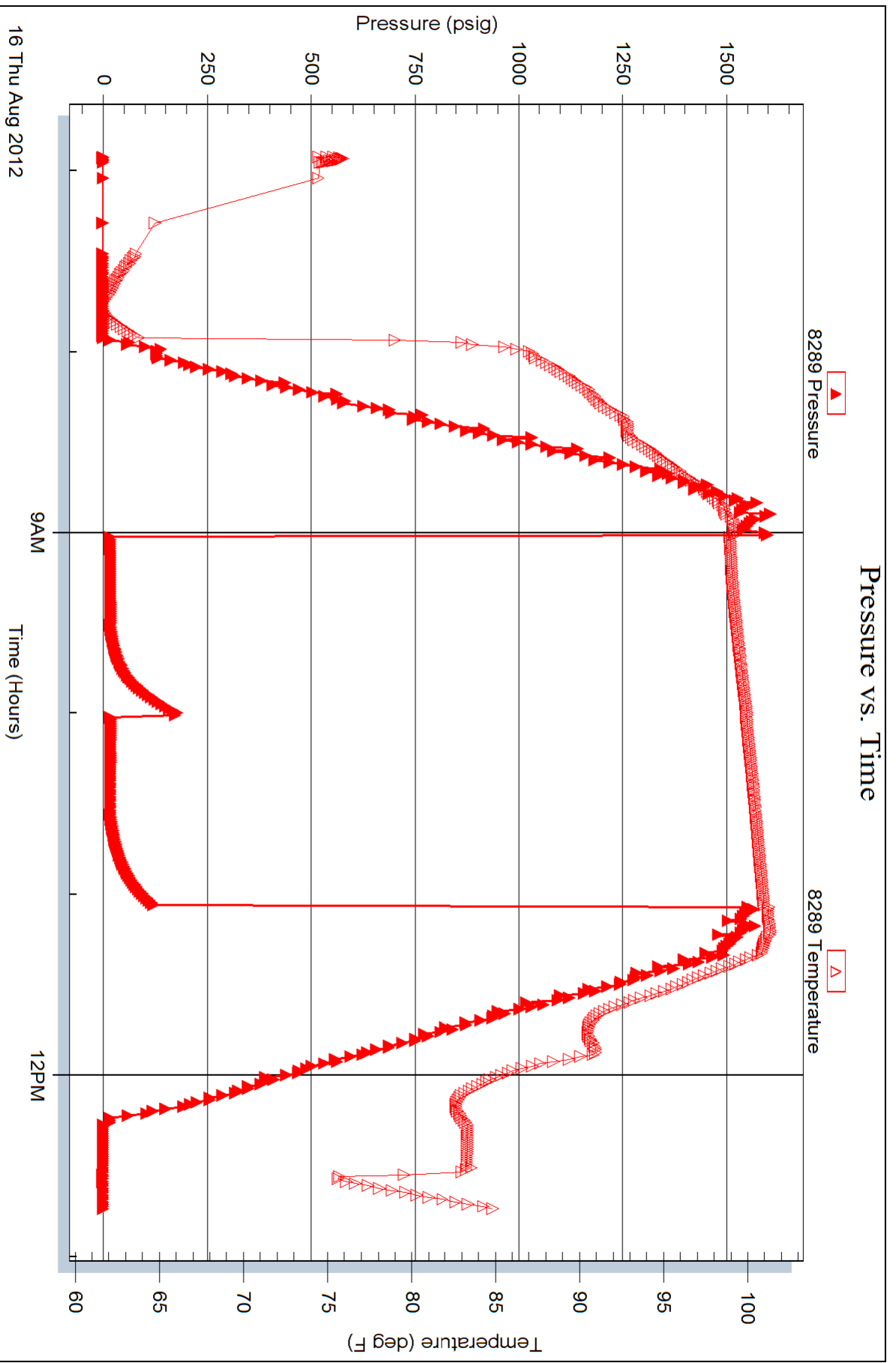


Serial #: 8289

Outside Caerus Kansas, LLC

Mortimer #31-32B

DST Test Number: 2







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

Job Ticket: 47846

**DST#: 3**

ATTN: Justin Carter

Test Start: 2012.08.17 @ 00:24:41

## GENERAL INFORMATION:

Formation: **H-I-J**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 02:19:26

Time Test Ended: 06:03:41

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

**Interval: 3251.00 ft (KB) To 3306.00 ft (KB) (TVD)**

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3306.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8366**

**Inside**

Press @ RunDepth: 36.78 psig @ 3288.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.17

End Date:

2012.08.17

Last Calib.:

2012.08.17

Start Time: 00:24:43

End Time:

06:03:41

Time On Btm:

2012.08.17 @ 02:19:11

Time Off Btm:

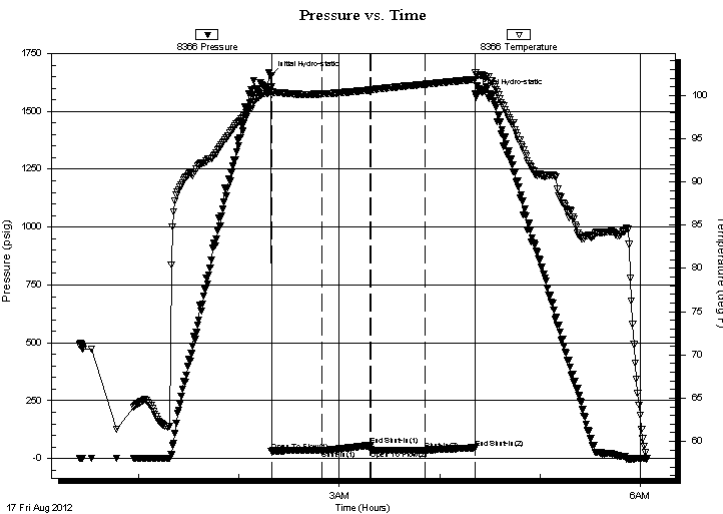
2012.08.17 @ 04:21:26

**TEST COMMENT:** IFP-Weak Blow , Built to 1/2" in 10 Min., Died

ISI-Dead

FFP-Dead

FSI-Dead



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.39	100.96	Initial Hydro-static
1	32.66	100.14	Open To Flow (1)
31	35.72	100.18	Shut-In(1)
60	56.64	100.64	End Shut-In(1)
60	35.32	100.64	Open To Flow (2)
92	36.78	101.30	Shut-In(2)
122	46.51	101.86	End Shut-In(2)
123	1578.39	102.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud W/Oil Scum	0.07

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

Job Ticket: 47846

**DST#: 3**

ATTN: Justin Carter

Test Start: 2012.08.17 @ 00:24:41

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud W/Oil Scum	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

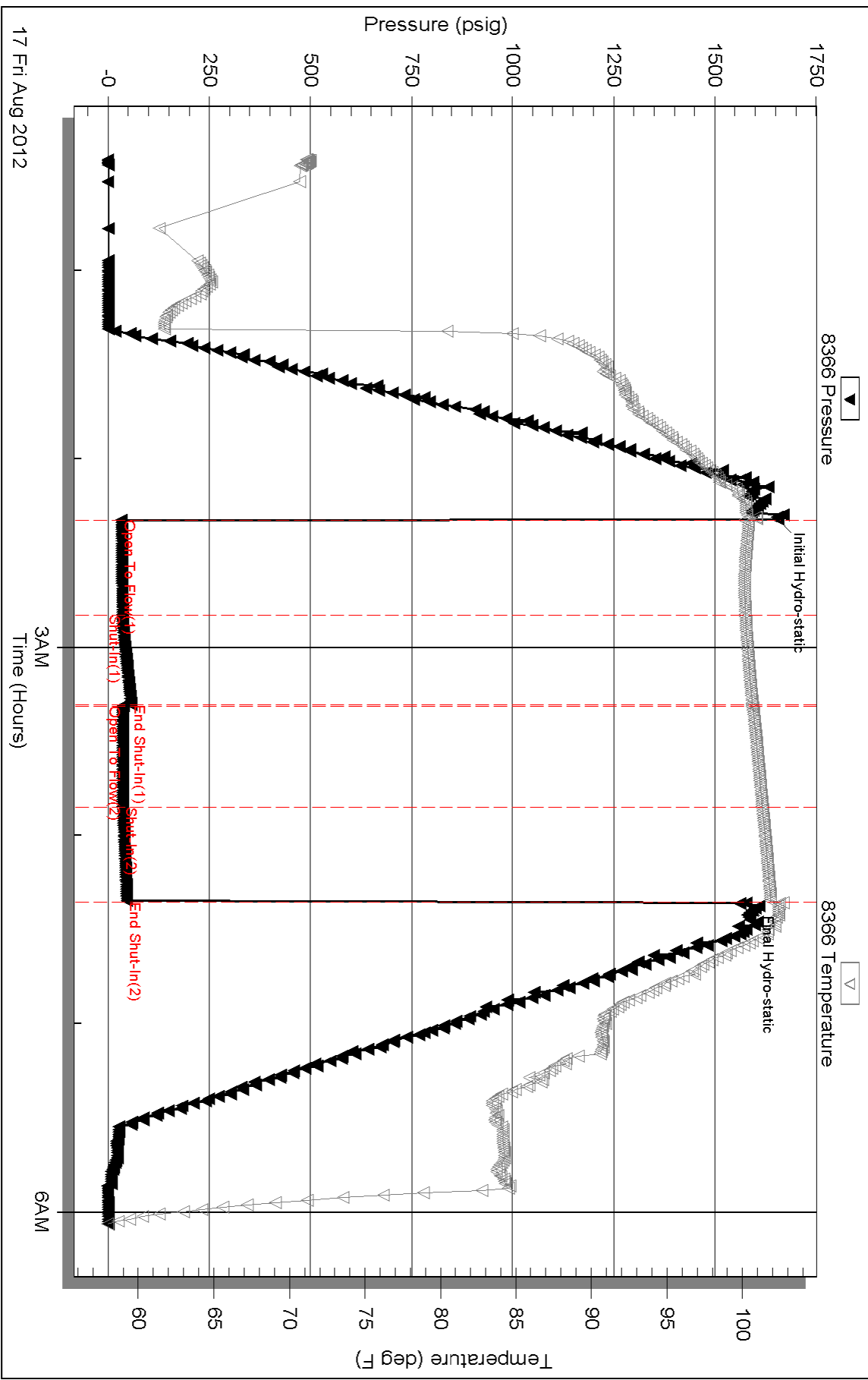
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

Job Ticket: 47847

**DST#: 4**

ATTN: Justin Carter

Test Start: 2012.08.17 @ 15:18:28

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 17:22:58

Time Test Ended: 21:09:13

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

**Interval: 3316.00 ft (KB) To 3364.00 ft (KB) (TVD)**

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3364.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8366**

**Inside**

Press @ Run Depth: 37.52 psig @ 3351.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.17

End Date:

2012.08.17

Last Calib.:

2012.08.17

Start Time: 15:18:30

End Time:

21:09:13

Time On Btm:

2012.08.17 @ 17:22:43

Time Off Btm:

2012.08.17 @ 19:27:43

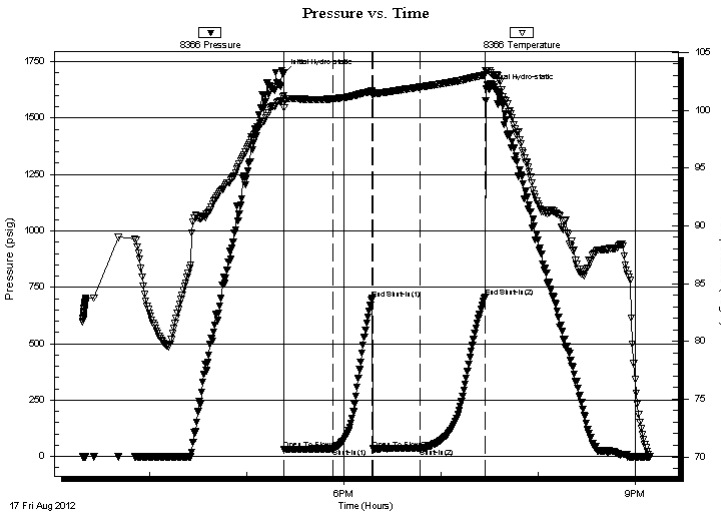
TEST COMMENT: IFP-Weak Blow , Died in 5 Min.

ISI-Dead

FFP-Dead

FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.86	101.26	Initial Hydro-static
1	31.96	100.25	Open To Flow (1)
31	34.48	100.99	Shut-In(1)
55	699.88	101.66	End Shut-In(1)
56	33.89	101.44	Open To Flow (2)
84	37.52	102.00	Shut-In(2)
125	706.58	103.05	End Shut-In(2)
125	1631.50	103.45	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Free Oil	0.07
10.00	OCM-20%O-80%M	0.14

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

Job Ticket: 47847

**DST#: 4**

ATTN: Justin Carter

Test Start: 2012.08.17 @ 15:18:28

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Free Oil	0.070
10.00	OCM-20%O-80%M	0.140

Total Length: 15.00 ft      Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8366

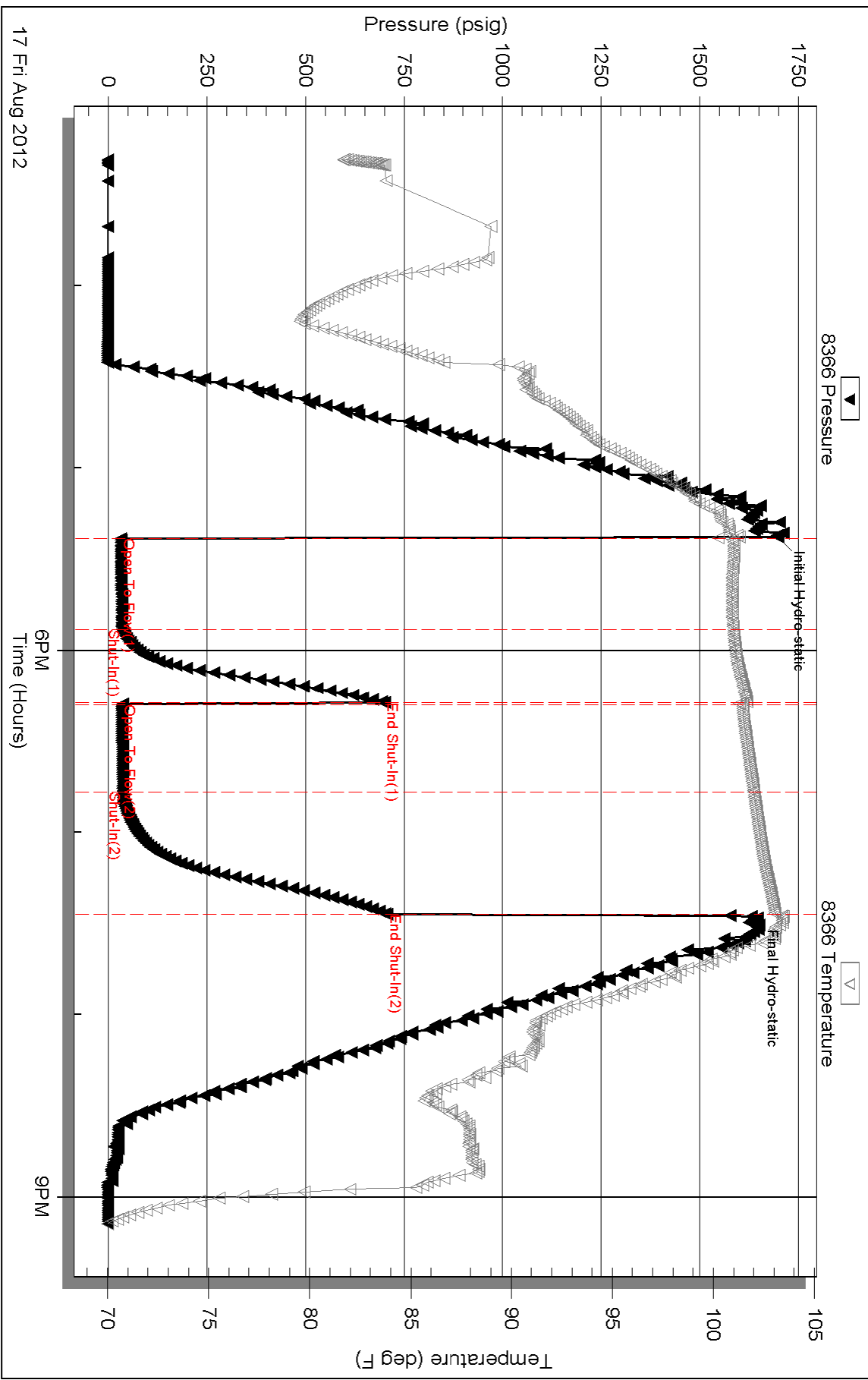
Inside

Caerus Kansas, LLC

Mortimer #31-32B

DST Test Number: 4

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 47847

Printed: 2012.08.18 @ 00:19:58



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Caerus Kansas, LLC  
 PO Box 1378  
 Hays, KS. 67601  
 ATTN: Justin Carter

**31-17s-13w-Barton**

**Mortimer #31-32B**

Job Ticket: 47848

**DST#: 5**

Test Start: 2012.08.18 @ 03:30:58

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 05:46:43

Time Test Ended: 10:48:43

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

**Interval: 3364.00 ft (KB) To 3374.00 ft (KB) (TVD)**

Total Depth: 3374.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1870.00 ft (KB)

1860.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 8366**

**Inside**

Press @ Run Depth: 77.76 psig @ 3366.00 ft (KB)

Start Date: 2012.08.18

End Date: 2012.08.18

Start Time: 03:31:00

End Time: 10:48:43

Capacity: 8000.00 psig

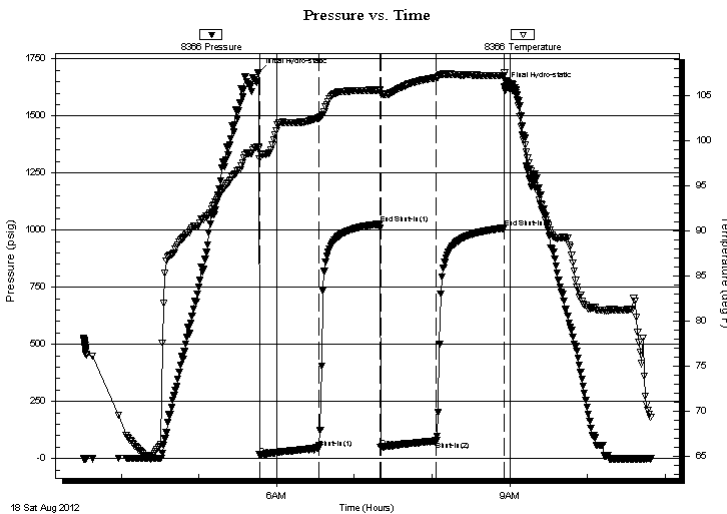
Last Calib.: 2012.08.18

Time On Btm: 2012.08.18 @ 05:46:13

Time Off Btm: 2012.08.18 @ 08:55:58

**TEST COMMENT:** IFP-Fair Blow , Built to 10"  
 ISI-Dead  
 FFP-fair Blow , Built to 6"  
 FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1691.01	99.12	Initial Hydro-static
1	15.77	97.99	Open To Flow (1)
46	46.57	102.47	Shut-In(1)
94	1027.50	105.57	End Shut-In(1)
94	50.31	105.17	Open To Flow (2)
137	77.76	106.94	Shut-In(2)
190	1009.03	107.18	End Shut-In(2)
190	1626.80	107.53	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
150.00	Free Oil	2.10
20.00	OCWM-30%O-10%W-60%M	0.28

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Kansas, LLC

**31-17s-13w-Barton**

PO Box 1378  
Hays, KS. 67601

**Mortimer #31-32B**

Job Ticket: 47848

**DST#: 5**

ATTN: Justin Carter

Test Start: 2012.08.18 @ 03:30:58

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
150.00	Free Oil	2.104
20.00	OCWM-30%O-10%W-60%M	0.281

Total Length: 170.00 ft

Total Volume: 2.385 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



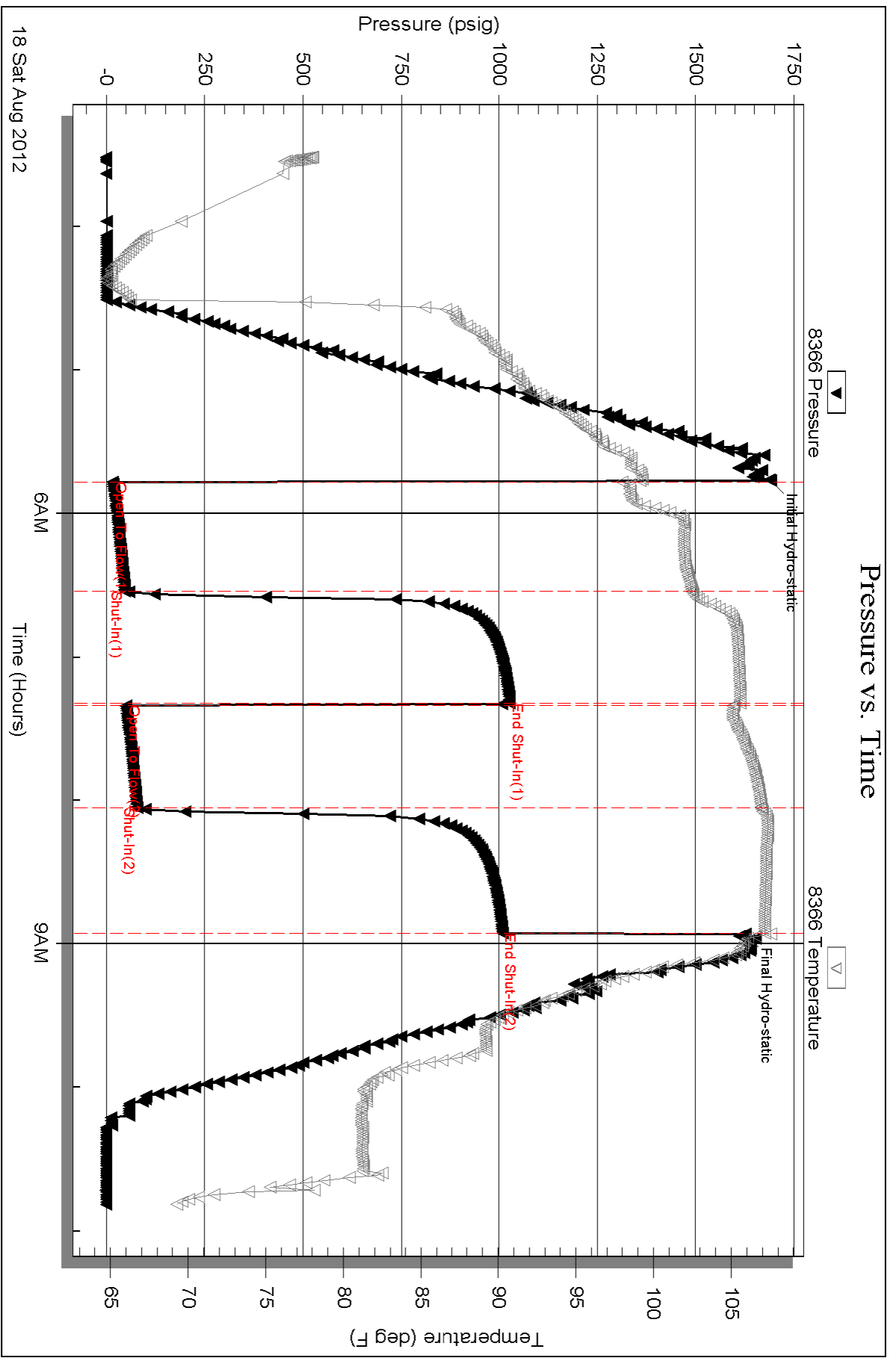
Serial #: 8366

Inside

Caerus Kansas, LLC

Mortimer #31-32B

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 47848

Printed: 2012.08.18 @ 23:45:21

## TREATMENT REPORT

Customer	CARUS Oper. LLC
Lease	Motimer
Field Order #	06558A
Station	Pratt KS
Lease No.	31-32 B
Well #	31-32 B
Depth	3488'
County	Barton
State	KS
Date	8-19-12
Legal Description	5 1/2" long string
Formation	cnw R103550

PIPE DATA		PERFORMING DATA		FLUID USED		TREATMENT RESUME	
Casing Size	5 1/2"	Shots/Ft	12	Acid	Mud Flush	RATE	ISIP
Depth	3488'	From	To	Pre Pad	150 SKS 60/40	Max	5 Min.
Volume	82 1/2	From	To	Pad	30 SKS 60/40	Min	10 Min.
Max Press	1500	From	To	Frag	20 SKS 60/40	Avg	15 Min.
Annulus Vol.	102	From	To	Flush	20 SKS 60/40	HHP used	Annulus Pressure
Packer Depth	3467'	From	To	Flush	20 SKS 60/40	Gas Volume	Total Load

Customer Representative	Brian Kartin
Station Manager	Scotty
Treater	Allen
Service Units	28443 27463 19826 19860
Driver	Allen McGraw
Names	Brett

Time	Pressure	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1140 AM						on loc. Discuss Safety, Seting Plan Job
1008 AM						Rigging down D.C.
130						Lay down Kelly, & moose hole
						Rig up to Run 5 1/2 CSS 15.5 #
						Start 5 1/2 CSS, shoe joint at 132
						w/ float shoe, & L.D. Baffle in collar
						Cent. 3-4-5-7-9-11. Basket #2
320						Pipe @ 3488' CIR. & Rotate Pipe
420	200'	12	5	5	5	Pump 5 BBL Mud Flush
						Pump 5 BBL H <sub>2</sub> O spacer
						Mix + Pump 150 SKS 60/40 Post.
						Finish mix, Washout Pump & Line
						5 1/2 Drop L.N. Plug, Start Disp.
						Caught lift PST w/ 65 BBLs
						Plug closer
						Plug Rat Hole w/ 30 SKS 60/40
						Plug Mouse Hole w/ 20 SKS 60/40
						Wash up & Backup Equip.
						Job complete
						+ hawks
						Allen McGraw
						Brett

# ALLIED OIL & GAS SERVICES, LLC 053693

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Great Bend

DATE <u>Aug. 12/2012</u>	SEC. <u>31</u>	TWP. <u>17</u>	RANGE <u>13</u>	CALLED OUT <u>06:30 AM</u>	ON LOCATION <u>07:25 AM</u>	JOB START <u>11:00 AM</u>	JOB FINISH <u>12:00 PM</u>	
LEASE <u>Mertimer</u>		WELL # <u>31-32B</u>		LOCATION <u>East of Hoisington</u>			COUNTY <u>Barton</u>	STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)		2.01						

CONTRACTOR <u>Maverick 106</u>		OWNER <u>Caerus Kansas LLC</u>
TYPE OF JOB <u>Surface</u>		
HOLE SIZE <u>12 1/4"</u>	T.D.	<u>825 ft</u>
CASING SIZE <u>8 5/8" 24"</u>	DEPTH	<u>823 ft</u>
TUBING SIZE	DEPTH	
DRILL PIPE	DEPTH	
TOOL	DEPTH	
PRES. MAX	MINIMUM	
MEAS. LINE	SHOE JOINT	<u>28.27 ft</u>
CEMENT LEFT IN CSG.		
PERFS.		
DISPLACEMENT		

**EQUIPMENT**

PUMP TRUCK # <u>366</u>	CEMENTER <u>Charles Atkins</u>	<u>1</u>
	HELPER <u>John Campbell</u>	<u>3</u>
BULK TRUCK # <u>344</u>	DRIVER <u>Kevin Weishous</u>	<u>3</u>
BULK TRUCK #	DRIVER	

REMARKS:  
  
See Job log

CHARGE TO: Caerus Kansas LLC  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Cecil E. Farnow  
SIGNATURE Cecil E. Farnow

**CEMENT**  
AMOUNT ORDERED 500 SA Class "A" + 2% Gcl + 3% Calcium Chloride

COMMON	<u>Sees</u>	@ <u>110.25</u>	<u>8.125.00</u>
POZMIX		@	
GEL	<u>9</u>	@ <u>21.25</u>	<u>191.25</u>
CHLORIDE	<u>17</u>	@ <u>58.26</u>	<u>989.40</u>
ASC		@	
HANDLING	<u>540</u>	@ <u>2.10</u>	<u>1134.00</u>
MILEAGE	<u>24.69 x 12 x</u>	@ <u>2.35</u>	<u>696.30</u>
			<b>TOTAL</b> <u>11.135.95</u>

**SERVICE**

DEPTH OF JOB	<u>823 ft</u>	
PUMP TRUCK CHARGE		<u>1125.00</u>
EXTRA FOOTAGE	<u>523</u>	@ <u>.95</u> <u>496.85</u>
MILEAGE	<u>Hum 12</u>	@ <u>7.00</u> <u>84.00</u>
MANIFOLD		@
	<u>hum 12</u>	@ <u>4.00</u> <u>48.00</u>
<b>TOTAL</b> <u>1753.85</u>		

**PLUG & FLOAT EQUIPMENT**

<u>1 Top Fly Rubber + 1 2 1/2" Beffte</u>		
Rubber Plus	@ <u>112.00</u>	<u>112.00</u>
Baffle plate	@ <u>112.00</u>	<u>112.00</u>
<b>TOTAL</b> <u>224.00</u>		

SALES TAX (If Any) 695.66  
TOTAL CHARGES 13.113.75  
DISCOUNT 25% 3.278.93  
IF PAID IN 30 DAYS 9.835.31